Laboratory Quality Assurance Plan (LQAP)

Forrest Knowles

USACE

U.S. Army Corps of Engineers
New England District

LQAP

- Part of Quality Assurance/Quality Control (QA/QC) program
- Required components based on:
  - National Environmental Laboratory Accreditation Conference (NELAC)
  - EPA Superfund Contract Laboratory Program (CLP)

Reasons for an LQAP

- Need accurate and reliable data
- Not everyone is set up for this work
- Decisions on proper method of disposal are based on chemistry and biological data
- Previously QA/QC data were not always complete
- LQAP demonstrates a laboratory's capability

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LQAP

- RIM requires labs have on file at NAE an LQAP specific to the dredging program
- On file at NAE by 6 May 2006
- Please send LQAP as soon as possible
- We will send letter acknowledging receipt
- We will work with you to have it meet requirements

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LQAP

- **We do not “approve” LQAP’s or “certify” labs**
  - **Our intention is not to disqualify labs from doing work**
  - **Labs must prove to us they are capable**
- **We only acknowledge that LQAP meets requirements of RIM/dredging program**
- **NAE will send letter when LQAP meets requirements of RIM**
- **Not certifying or approving**

LQAP Requirements

- **Items to be included are in letters sent 18 Jan 2002 and 7 July 2004**

- **LQAP letter on RIM website: http://www.nae.usace.army.mil/reg/rim.htm**

LQAP Requirements

- Lab name, address, phone, fax and electronic mail address
- QA organization: personnel responsibilities and qualifications
- QA objectives and criteria for measurement data in terms of accuracy, precision, representativeness, comparability, and completeness

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LQAP Requirements

- Standard operating procedures (general laboratory)
- Sample custody and documentation
- Calibration procedures and frequency
- Analytical procedures –
  - List name if standard procedure (e.g., from EPA, APHA, or ASTM)
  - Provide detailed description if developed in the laboratory.

LQAP Requirements

- Data validation, reduction and reporting
- Internal QC checks
- Performance and system audits
- Facilities and equipment
- Preventative maintenance

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LQAP Requirements

- Calculation of data quality indicators
- Corrective actions
- QA reports to management
- References

LQAP Requirements

Chemistry – each matrix

- **Control charts for SRM performance**
- **MDL studies**

LQAP Requirements

Biological testing

- Control charts of control treatments – Acute toxicity
- Latest reference location tests – Acute toxicity
- Reference toxicant testing data

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Questions?

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